Vol. 103 No. 5 March 6, 1948

The American FERTILIZER

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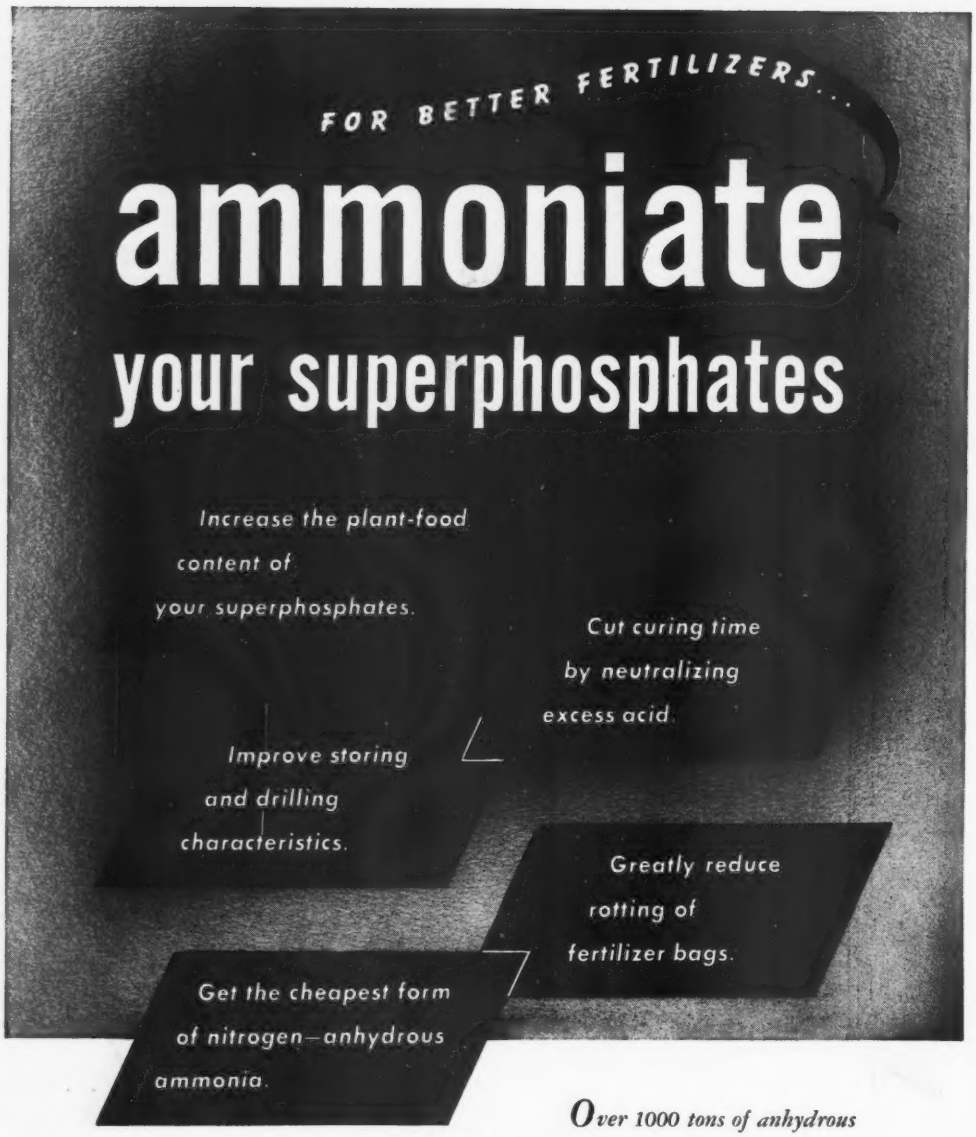
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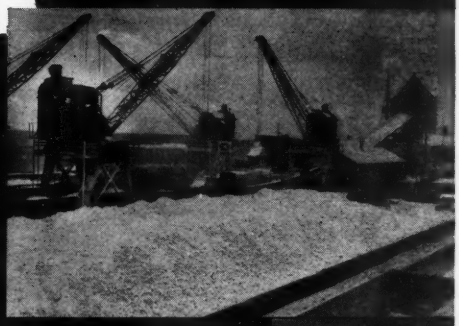

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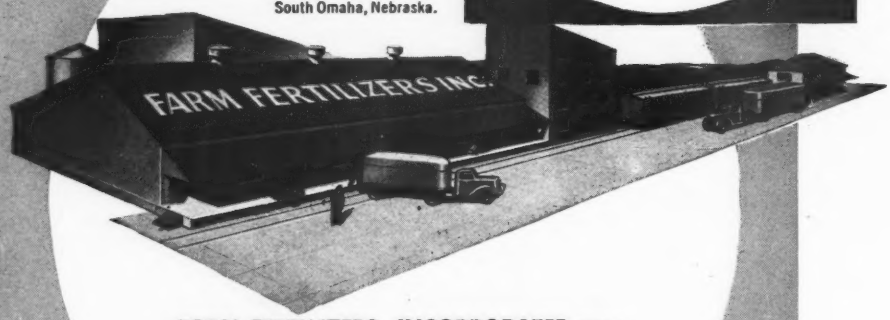

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SPENSOL B	55.5	26.0	18.5	40.8	9.71	31.10
SPENSOL C	66.8	16.6	16.6	37.0	11.69	25.34

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The American FERTILIZER

Vol. 108 MARCH 6, 1948 No. 5

Wage Increases And Inflation*

THERE seems to be a large element of futility in the vicious spiraling of wages and prices. Incomes go up and prices go up. Organized labor argues that wages must be high because prices are high. Business answers that prices must be high because costs are high. The general public stands by helplessly, watching this seemingly unending process inflate our entire national price structure.

The first two rounds of postwar wage increases in American industry have boosted hourly earnings by 27 per cent from the January, 1946 level.

The Consumer's Price Index, or cost of living, has gone up 28 per cent in the same period. A third round of wage increases is now threatening the nation, and American consumers have a vital interest in this development.

The buying public in America, and particularly the housewives of the nation, may well ask themselves whether there is any reason to think that a third round of wage increases will not be paralleled by a corresponding increase in the cost of living in due course. If the first two rounds sent the cost of living up 28 per cent between January, 1946 and December, 1947, what will a third round do? Apparently the average industrial worker has no more buying power today than he had just before the first round was forced upon a dangerously shaken economy.

Controversy over wages and profits is essentially an effort to maintain some semblance of balance between the shares of workers and the shares of owners in a rapidly changing economy which is changing for other reasons.

It is very important that neither group receive any sharp increase or decrease in its percentage share, because a large and sudden change in this share for either group could cause an unbalanced condition that might seriously disrupt our whole economy.

The wage dollar will not buy what it formerly bought, but neither will the businessman's profit dollar buy as much as it formerly did. The process suggests that there are forces which are sending prices up quite apart from wages and profits.

What are these forces? The answer is found in such factors as excessive government spending, excessive and unbalanced taxation, a gigantic national debt, a Federal cheap money policy, unsound methods of extending aid to Europe, and inadequate production and productivity.

Proponents of round after round of wage increases constantly deal out half-truths which simply impede the country's progress in correcting inflationary pressures, and make of business profits a scapegoat upon which to blame the spiral of rising prices.

The arguments used in this connection are so elaborate and devious that a continuous battle is waged to correct the endless misrepresentations of fact. This continuous struggle has the effect of creating an enormous smoke screen which obliterates the real

*A report issued by the National Association of Manufacturers.

fundamental reasons for rising prices. The fundamental reasons are neither wages nor profits.

Excessive government spending is a major inflation factor. The Federal budget definitely can be cut by many billions of dollars, without impairing the military needs established by national policy.

The budget can be cut to approximately $31 billion and still include $4 billion for contingencies involving international affairs and finance. However, in the face of this enormous opportunity for economy in government, the nation is heading toward a total Federal tax burden of approximately $45 billion.

Tax reduction is not inflationary. On the contrary, in conjunction with reduced government spending immediate tax reduction would be decidedly anti-inflationary. It is essential that taxes be scaled down to allow individual saving, so that the historic rate of investment in new job-creating enterprises can be maintained.

Cheap Money Policy

The Federal cheap money policy also is a basic inflationary factor. People will always borrow more money at 2 per cent than they will at 4 per cent.

For many years now, the government has held down the interest rates, and thus encouraged a greater expansion of credit than could be justified. The inflationary expansion of bank credit can be discouraged by permitting interest rates to seek their own levels, free of government domination.

In aiding Europe, goods in critically short supply in this country should not be sent abroad when such goods are abundant elsewhere or their equivalents are plentiful here. Relief should be provided in goods—not in dollars—purchased in the most economical markets here or abroad.

Continued failure to put into effect such methods of aiding Europe penalizes the American taxpayer twice: once through unnecessarily high cost to our public treasury, and again through unnecessarily forcing up the market prices of the goods the taxpayer buys for his own use.

These factors indicate the real story behind the current inflation, and indicate the kind of corrective steps which should be taken.

In sum and substance the whole anti-inflation program which industry offers rests heavily upon two broad-gauge economic processes—high production and high capital formation.

The need for business to retain some of its profits for purposes of expansion and job creation should readily be understood. For one thing, this country adds about 600,000 persons a year to its labor force. These people want jobs, and that means there must be business expansion at least sufficient to provide those jobs.

This problem involves outlays of billions of dollars a year by business. In the present period, corporate business is paying its stockholders about half of their former customary share of the proceeds of gross business production in order to have the necessary share retained for purposes of expansion and job-making.

Thus it is clear that profits are not piling up like money that is buried in the ground. Profits are affording only very limited dividends to stockholders on the one hand, and are going right back into job-creating expansion on the other hand.

The government is taking away from private individuals, through taxation, the kind of money that would have gone into private capital formation.

This has established a dangerous trend, because as rapidly as private capital is weakened by such unbalanced and excessive personal taxation, the government increases its insistence upon continued heavy taxation as a remedy for the very condition which was prescribed and brought about by itself and its own tax policies. If these warped tax policies are changed and corrected, the problem of private capital formation will largely be solved and the threat of runaway inflation will be greatly reduced.

Greater Production

Because most economic observers agree that more and more production is the best way to bring prices down does not mean that monetary factors, fiscal policies and taxation are not basic and vital—it means that increased production can be a tremendous help and must go along with remedial action on the other factors.

Anything that increases total physical production will help to prevent an inflationary debacle, because it will bring physical goods into closer balance with the excessive money supply, by producing more goods—instead of raising prices to close the gap. Increased production will bring with it an increased total income, but it will not increase the total money supply of the economy. In fact, the money supply can be held as it is or even be reduced.

(Continued on page 26)

International To Build New North Carolina Plant

International Minerals and Chemical Corporation has announced plans to erect its second fertilizer mixing plant in North Carolina with its purchase of eight acres in Winston-Salem where construction is expected to begin in the near future.

The plant will be able to produce approximately 20,000 tons of complete fertilizers annually and is designed to meet the expanding demands of International's customers in the central and northern portions of the state. Currently, its plants in Wilmington, N. C., Spartanburg, S. C., and Norfolk, Va., are serving that area.

The plant will measure approximately 200 by 240 feet and will be equipped with the most efficient mixing machinery and latest labor-saving devices for maintaining maximum production. It will be located adjacent to the Southern Railway on the north city limits. From 20 to 55 employees will be needed to operate the plant, depending upon seasonal requirements. Construction is expected to be completed next fall according to present plans.

The Winston-Salem plant will utilize raw materials from International's own mines in manufacturing the finished product. Potash will be obtained from its mine in Carlsbad, N. M., while superphosphate will be produced from phosphate rock from its mines in Bartow, Fla.

American Potash Appoints Dinsmoor Head of Development

American Potash and Chemical Corporation, Los Angeles, has appointed Daniel S. Dinsmoor director of development. Mr. Dinsmoor, consultant and a former vice-president of Monsanto Chemical Company, St. Louis, will make his headquarters at the company's Los Angeles offices, where he will work in close association with Samuel Cottrell, vice-president in charge of technical operations.

Mr. Dinsmoor started in the industrial chemicals field with the Merrimac Chemical Company in 1917. He became superintendent of that company's plant in Everett, Mass., in 1926, and retained that position when the company was acquired by Monsanto in 1929. In 1932 he was sent to England for two years to assist in technical and administrative assignments.

Fall Fertilizer Sales in Texas Increase

Sales of fertilizers in Texas during the second half of 1947 showed an increase of 32 per cent over those of the same portion of 1946, according to figures released by J. F. Fudge, state chemists. From July 1 to December 31, 1947, total sales were 164,568 tons, of which 41,390 tons were mixed goods and 123,178 tons were materials. The 1946 figures showed 48,093 tons of mixed fertilizers and 76,625 tons of materials.

The increase in materials sales was accounted for a tonnage of 105,384 in 20 per cent superphosphate, compared with 47,702 tons of this material during the last half of 1946.

In mixed fertilizers, the most popular grades were 4–12–4 with 18,015 tons and 5–10–5 with 12,060 tons. Total plant food amounted to 5,536 tons N, 28,663 tons P_2O_5, and 1,561 tons K_2O. This is an over-all increase of 36 per cent over the second half of 1946.

Canada Fertilizer Sales Set Record

The official figures for the sale of fertilizers and fertilizer materials in Canada during the year ending June 30, 1947 show a record volume for that country.

Continuing the annual gains registered since 1941, sales at the end of the past season totaled 657,282 tons, compared with the previous record total of 632,943 tons for the preceding season and 575,107 tons for the 12 months ended June 30, 1945.

Sales increases were recorded last year for both mixtures and materials, the former amounting to 561,464 tons compared with 542,497 tons the previous year, and materials amounting to 95,818 tons sold compared to 90,446 tons in the 1946 season, the Dominion Bureau of Statistics reported.

Exports aggregated 696,962 tons, consisting of 653,279 tons of materials and 43,683 tons of mixtures, according to the report.

Largest Canadian seller among mixed fertilizers was the 2–12–6 mixture with sales totaling 176,647 tons, followed by the 4–8–10 mixture with sales of 164,986 tons and the 2–10–8 mixture selling 43,683 tons.

Among fertilizer materials, ammonium phosphate led in volume of sales with an aggregate of 44,820 tons and superphosphate was second with 27,232 tons, according to the Dominion report.

Pastures Offer Big Possibilities

That well-fertilized and well-managed pastures offer big possibilities for profits on the dairy farm was emphasized by Dr. Firman E. Bear, New Jersey Agricultural Experiment Station, at a meeting of the National Joint Committee on Fertilizer Application held in Chicago recently.

Speaking on "Soil Fertility in Relation to Fertilizer Practice," Bear pointed out that since 1927 when the country's first experiment on intensive fertilization of pastures was established by Professor Carl Bender at the New Brunswick Station, results have shown that well-managed pastures pay high returns.

"As a result of this early work, pasture fields at the Dairy Research Station in Sussex County have received fertilizer applications at rates equivalent to between 500 and 1,000 pounds of an 0–10–10 or a 10–10–10 grade per acre annually. The choice as between these two grades has been determined by the intensity of the grazing program and the extent to which white and Ladino clover or the grasses have dominated the pasture herbage. Experimenting with irrigation of pastures and haylands is now under way. It is assumed that this will call for still heavier doses of fertilizer," Bear said.

In stressing the important part which soil fertility should play in determining the fertilizer application, Bear cited New Jersey potato farms where because of fertilizer applications during the past years, fertilizer applications could be changed from a 1–2–2 type of fertilizer to the same quantity of a 1–1–1 ratio, since the soil had stored up quantities of phosphorus and potash. Bear also told of fertility practices in irrigated market-gardening areas in New Jersey which pointed up the need for supplying minor elements along with the major plant foods.

"The time has arrived," Bear said, "when a great deal more consideration must be given to deeper plowing and to the use of correspondingly larger amounts of soil amendments. We need to increase the amount of topsoil by deep incorporation of liming materials and crude types of organic matter. We need to grow more tap-rooted legumes that open up the subsoil and leave air channels and organic residues at greater soil depths than do ordinary crop plants.

"The overall task involves the building up of the structural and fertility levels of about two plow depths of soil. This permits of a greater volume of soil in which the roots can forage, protection against excess water and the formation of toxic substances during wet spells, and prevention of drouth injury when the weather is dry. In proportion as we permit the formation of plow pan, the consolidation of the subsoil, and the development of conditions that are unfavorable for the growth of deep-rooting plants and for the activities of earthworms, the less the likelihood that full effects from the use of fertilizers will be obtained," stated Bear.

Bemis Distributes Booklet on Waterproof Bags

A Book You Can Bank On To Save You Money, a 12-page booklet describing the jobs that can be done with waterproof laminated textile bags, is being distributed free upon request by Bemis Bro. Bag Company.

Citing case histories of knotty packaging problems that have been solved, the booklet tells how waterproof bags are designed to give low-cost protection against packing, storage and shipping difficulties encountered when a product must be protected against such hazards as change in moisture content, contamination, sifting losses and insect infestation. The bags, made of one or more layers of creped kraft paper laminated to cotton or burlap cloth, can also be made lintproof, acid-resistant, grease- or oil-resistant when such special protection is needed.

The Bemis booklet illustrates the variety of bag-closing methods, seams and special constructions which make it possible to "tailor" a bag to meet nearly any shipping requirement.

1948 Burley Tobacco Quota Increased

Secretary of Agriculture Clinton P. Anderson has announced an increase in the 1948 Burley tobacco national marketing quota from 474 million pounds as proclaimed November 28, 1947 to 514 million pounds. This increase will offset the difference of 40 million pounds between actual sales of about 485 million pounds and the indicated 1947 crop of 525 million pounds used in calculating the quota last November.

Acreage allotments for most farms for 1948, with the increased quota, will be approximately 2 per cent less than the 1947 allotments. Farm allotments of 0.9 acre or less

in 1947 will not be reduced. The total of all farm allotments will be approximately 1 per cent less this year than in 1947.

The national marketing quota for 1948 of 514 million pounds compares with the quota of 490 million pounds for 1947. The total acreage allotted for 1948, however, will be approximately 1 per cent less than the acreage allotted for 1947 because of the use of a higher average yield per acre in determining the individual and minimum acreage allotments. In accordance with the provisions of law, the past five-year average yield of 1,108 pounds per acre was used for converting the 1947 quota. The past five-year average yield for converting the 1948 quota is 1,147 pounds per acre.

Dodge To Head du Pont Ammonia Planning Division

E. I. du Pont de Nemours & Company, Wilmington, has named Dr. Ralph L. Dodge to head a planning division which it has organized in its ammonia department. Dr. Dodge, who has been control manager of the department since 1944, will be succeeded by Charles R. Schwartz. Mr. Schwartz's former post as assistant control manager will be filled by Allen E. Lawrence.

Dr. Dodge joined the du Pont organization as a member of Lazote, Inc., a du Pont subsidiary, in 1924. In the following year he became chief chemist at the parent organization's ammonia department plant at Belle, W. Va. Mr. Schwartz joined the company in 1925, and Mr. Lawrence has been with the organization since 1930.

Mineral Elements Basic Pasture Need

Good pastures, from the standpoint of furnishing a well-balanced forage ration, are made up of true grasses and legumes. Mineral elements and a suitable soil reaction, brought about by the use of lime when necessary, encourage the growth and maintenance of legumes in pastures. When legumes are maintained so as to supply at least half of the vegetation in pastures, they will usually gather enough nitrogen from the atmosphere to supply the needs of the pasture plants. Applications of nitrogen under such conditions are not necessary. On the other hand, the growth of the true grasses is encouraged by the use of nitrogen; and on soils very low in nitrogen, the legumes may require nitrogen in order to become well established and vigorous enough to perform the function of nitrogen gatherers. Mineral elements are, of course, necessary for the true grasses in order that they may utilize the available nitrogen. For these reasons, the first step in the improvement and establishment of a good pasture sod is to bring about a proper soil reaction and supply the deficient mineral elements. (*Virginia Bulletin 397*)

British Imports and Exports Decrease

British fertilizer trade with other countries showed a moderate decline during 1947, according to the statistics of the Board of Trade. Imports totaled 1,378,231 tons, compared with 1,402,468 tons in 1946. Imports, however, were more than double those of 1938, the last pre-war year.

Distinct increases were recorded in imports of potash and phosphate rock, while there was an even greater decrease in superphosphates. This would indicate that the acidulators of Great Britain are back into normal production and are able to take care of the country's requirements for this material.

Exports dropped from 425,845 tons in 1946 to 349,850 tons in 1947. Both of these figures are lower than 1938 exports of 476,079 tons. Declines were recorded in both sulphate of ammonia and ammonium nitrate, which make up more than 90 per cent of the total exports. The British fertilizer industry is in the difficult position of having to satisfy the demands of the British farmer for more fertilizer, and at the same time maintain the export quotas which are so vitally needed to maintain the financial position of the United Kingdom.

IMPORTS AND EXPORTS FROM THE UNITED KINGDOM

	(Tons)		
Imports	1947	1946	1938
Nitrate of Soda	19,439	45,200	55,626
Nitrate of Potash	143	307	2,526
Muriate of Potash	317,257	225,173	89,165
Sulfate of Potash	17,579	2,998	43,823
Phosphate Rock	910,848	872,851	410,454
Superphosphates	37,126	204,203	14,421
Bone Meal	11,988	15,079	13,898
Ammonium Phosphate	9,615	18,273	649
Other Fertilizers	54,236	18,384	9,648
Total	1,378,231	1,402,468	640,210
Exports			
Sulphate of Ammonia	246,280	277,925	313,393
Ammonium Nitrate	79,456	130,516	16,326
Other Fertilizers	24,114	17,404	146,360
Total	349,850	425,845	476,079

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Changes in Official Fertilizer Definitions

At the annual meeting of the Association of Official Agricultural Chemists, held in Washington last fall, several additions were made to the list of official definitions of fertilizer materials. As reported in the current issue of the Association's Journal, these were as follows:

Official Final Action

All fertilizer components with the exception of potash (K_2O) and phosphoric acid (P_2O_5), if guaranteed, shall be stated in terms of the elements.

Fused tricalcium phosphate is a product composed chiefly of the alpha form of the compound represented by the formula $Ca_3(PO_4)_2$. Its fineness and content of available phosphoric acid, (P_2O_5) shall be stipulated. Example: Fused tricalcium phosphate — twenty-five per cent (25%) available phosphoric acid (P_2O_5).

Calcium metaphosphate is a product composed chiefly of the vitreous compound indicated by the formula $Ca(PO_3)_2$. Its fineness and its content of available phosphoric acid (P_2O_5) shall be stipulated. Example: Calcium metaphosphate—sixty per cent (60%) available phosphoric acid (P_2O_5).

Potassium metaphosphate is a product composed chiefly of the crystalline compound represented by the formula KPO_3. Its fineness and content of phosphoric acid (P_2O_5) and of potash (K_2O) shall be stipulated. Example: Potassium metaphosphate—fifty-five per cent (55%) available phosphoric acid (P_2O_5): thirty-seven per cent (37%) potash (K_2O).

Double sulfate of potash and magnesia (*Langbeinite*). Double sulfate of potash and magnesia (langbeinite) is a commercial product containing not less than twenty-one per cent (21%) of potash (K_2O), nor less than fifty-three per cent (53%) of sulfate of magnesia and not more than two and one-half per cent (2.5%) of chlorine.

Proposed Definition

Fused Calcium-Magnesium Phosphate is a product derived from the fusion of rock phosphate with approximately thirty per cent (30%) of magnesium oxide (MgO), as such or as a mineral silicate. Its fineness and content of available phosphoric acid (P_2O_5) shall be stipulated. Example: Fused Calcium—Magnesium Phosphate, twenty per cent (20%) available phosphoric acid (P_2O_5).

The Committee on Fertilizer Definitions is composed of L. S. Walker, Agricultural Experiment Station, Burlington, Vt., *Chairman;* F. W. Quackenbush, M. Elmer Christensen, W. H. MacIntire, L. E. Bopst, John B. Smith.

Some time ago, the Executive Committee considered the advisability of discontinuing the activities involved in the Study of Definitions of Terms and Interpretations of Results on Fertilizers and Liming Materials. The Fertilizer Committee, as listed above, voted to approve such a change, but when the resolution for termination of this work was presented to a vote of the Association, it was not adopted but was laid on the table by a vote of 14 to 9.

Ten Eyck Joins Continental Ore Staff

H. S. Ten Eyck, formerly vice-president in charge of sales of the Southern Phosphate Corporation, has joined the staff of the Continental Ore Company of New York. He will be in charge of the Chemical Division which the company has recently organized to handle its expanding activities in the chemical field.

For the past 10 years, Continental has concentrated on the import and export of ores, minerals and metals, but today it finds industrial and agricultural chemicals playing a large part in both its present tonnage and future plans.

Mr. Ten Eyck, in addition to his sales experience, is by training, a chemical engineer and has a wide acquaintance in the chemical and fertilizer fields.

Irrigation Plus Fertilizers

H. L. Barnett, Oconee County, Georgia, irrigated ¾ of an acre by running water along an almost level drainage ditch and down contour rows of corn and beans. A 3-acre farm pond provided the water.

Fertilizers used on the plot were 400 pounds of 4–10–4, plus 400 pounds of superphosphate and 100 pounds of nitrate of soda.

The $180 returns from the two crops on the plot came at a time when many corn and bean crops were ruined by dry weather.

Although he harvested two crops from the plot this year, Mr. Barnett will try to add extra crops in 1948. He sowed barley in the fall, will plant corn and beans in the spring, and when the corn is laid by in the summer he will sow the land in turnips.

Delay in Indian Burlap Export Quotas

The changes in the government of India have further affected the burlap market through the recent allotment of export quotas. The new Indian government has largely ignored the old Calcutta exporting firms which have handled this material for years, and has allotted about 80 per cent of the burlap to new firms and persons who have had no experience in this trade but who stand in well with the authorities. Fears have been expressed that these new exporters will not be able to produce the required letters of credit and that there will be some delay while new allocations are being determined.

The January burlap stocks in this country were 200 million yards. As the bag industry normally was about 65 or 70 million yards per month, a shortage is expected in a few months unless export quotas are ironed out shortly.

Obituary

Lionel Weil

Lionel Weil, well-known fertilizer manufacturer of Goldsboro, N. C., died on February 11th at the Johns Hopkins Hospital in Baltimore, after an illness of several weeks' duration. He was 71 years of age.

Following a special study of fertilizers needed for North Carolina soils, Mr. Weil founded Weil's Fertilizer Works in 1932 and was a partner in the firm at the time of his death. Always interested in industry development, he has served as a Director of the National Fertilizer Association since 1940.

A graduate of the University of North Carolina, Mr. Weil has for many years been closely identified with that institution. He was a Trustee of the University and helped establish the Weil Lectures on American Citizenship. Last year the University awarded him an honorary degree.

Mr. Weil was nationally known in the agricultural field and has been a member of the North Carolina Board of Agriculture since 1936. In 1945–1946, he was president of the Plant Food Institute of North Carolina and Virginia, and was a member of scientific and agricultural societies.

An active participant in civic and religious affairs, Mr. Weil will be missed by his neighbors and associates, as well as by his many friends in the fertilizer industry.

January Tag Sales

Fertilizer tax tag sales during January, 1948 in the 15 reporting States were equivalent to 1,454,000 short tons, according to reports of State control officials to The National Fertilizer Association. Compared with last January, sales were 4 per cent higher, and compared with two years ago they were 12 per cent higher.

The 11 Southern States reported total January sales of 1,196,000 tons, a decrease of 2 per cent from the 1,220,000 tons recorded for a year ago. Of these States, five reported increases ranging from 2 per cent for Virginia to 65 per cent for Oklahoma. The other six States, however, showed decreases ranging from less than 1 per cent for South Carolina to 47 per cent for Arkansas.

January tag sales for the four Midwestern States, totaling 257,000 tons, increased 40 per cent over the 184,000 tons reported for a year ago. Each of the four States had larger sales than for the preceding January, with Missouri recording the greatest percentage increase. Equivalent tag sales for the Midwestern States accounted for 18 per cent of total January sales, compared with 13 per cent last year and 16 per cent two years ago.

Beginning January 1, 1948, the use of tax tags was discontinued in Illinois. Monthly tax tag sale data, consequently, will no longer be available for that State.

Tag sales for July-January, the first seven months of the current fiscal year, amounted to 4,722,000 equivalent short tons, an all-time high. Compared with the 4,593,000 tons reported for the same period in the 1946–1947 fiscal year, sales were 3 per cent higher, and compared with two years ago they were 31 per cent higher. July-January sales for the

(Continued on page 24)

FERTILIZER TAX TAG SALES
Compiled by The National Fertilizer Association

State	January 1948 Tons	January 1947 Tons	January 1946 Tons	% of 1946–47	July-January 1947–48 Tons	July-January 1946–47 Tons	July-January 1945–46 Tons
Virginia	95,406	93,614	80,710	96	320,588	333,355	288,077
North Carolina	312,234	322,218	293,965	98	832,272	848,652	658,596
South Carolina	194,745	194,895	159,889	110	534,337	485,002	328,739
Georgia	226,211	200,590	169,643	101	438,729	432,427	397,382
Florida	85,008	97,233	132,154	83	528,889	639,353	598,854
Alabama	123,107	167,200	123,300	69	269,559	388,100	240,500
Tennessee	29,567	39,565	25,452	105	147,828	141,175	80,133
Arkansas	13,441	25,600	13,900	73	58,805	80,300	42,400
Louisiana	26,877	22,650	28,460	88	132,947	150,607	141,684
Texas	67,823	43,074	51,662	120	258,497	214,934	135,405
Oklahoma	22,059	13,350	7,500	147	61,516	41,795	16,160
Total South	1,196,478	1,219,989	1,086,635	95	3,583,967	3,755,700	2,927,930
Indiana	110,438	80,587	83,223	124	583,568	472,220	403,029
Kentucky	86,604	67,253	66,570	182	302,001	165,773	130,521
Missouri	46,028	26,890	53,087	110	163,041	147,868	123,113
Kansas	14,365	8,788	4,550	172	89,045	51,914	21,830
Total Midwest	257,435	183,518	207,430	136	1,137,655	837,775	678,493
Grand Total	1,453,913	1,403,507	1,294,065	103	4,721,622	4,593,475	3,606,423

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FERTILIZER MATERIALS MARKET

NEW YORK

Shipments of Mixed Fertilizers Dulls Manufacturers' Interest in Materials. Weather Conditions Hamper Transportation. Market on Organic Materials Slightly Easier. Supplies of Superphosphate Adequate in East. Nitrogen Materials Still in Short Supply.

Exclusive Correspondence to "The American Fertilizer"

NEW YORK, March 3, 1948.

Most fertilizer manufacturers were busy shipping out fertilizer and were not paying too much attention to the action of the fertilizer materials markets.

Organics

Prices for organics that are also used by the feed trade were more or less neglected and further declines in prices were noted. Animal tankage sold at $8.00 per unit of ammonia ($9.72 per unit N), and some blood was reported sold at the same price. The vegetable meal markets fluctuated from day to day with the grain markets and prices in most cases were easier. Soybean meal sold around $72.00 per ton in bulk, f.o.b. Decatur, and linseed meal sold at $77.00, f.o.b. Minneapolis. There were a number of re-sale lots on the market and buyers were slow to give shipping instructions on the material they had under contract. Some people in the feed trade seem to feel that as soon as weather conditions get back to normal there will be a better demand for most materials.

Fish Meal

Various re-sale lots appeared in the market and prices were slightly lower. Some West Coast material was understood to be available in quantity. Feed buyers were buying from hand to mouth.

Castor Pomace

This material was available for nearby shipment and several re-sale lots were offered. Some foreign material was reported at prices higher than the domestic market.

Nitrogen Solutions

Some buyers still reported being short, due to recent cutbacks.

Potash

Material was moving forward on contract with buyers eagerly awaiting promised arrivals. Shortages were reported in various areas due to the excessive demand for this material.

Sulphate of Ammonia

Shipments were reported slow in some sections due to weather conditions and railroad difficulties. The demand was far in excess of the available supply, with a good inquiry for export noted.

Superphosphate

Some places reported a low movement of this material and manufacturers were being well taken care of in most sections of the East. A good demand still exists for triple superphosphate for export.

Nitrate of Soda

One or two recent boat arrivals in the North has helped manufacturers who urgently needed this material. This material is still on a voluntary allocation basis by the importers.

Ammonium Nitrate

Producers reported decreased production at some plants due to power difficulties and export quotas. Very little material was being made available for the domestic trade.

Hoof Meal

Material was available at several points and with little buying interest noted. Stocks on hand are light, however.

Nitrogenous Material

Producers were shipping on existing contracts but some buyers were holding back shipping instructions, due to their inability to move mixed fertilizer out of their plants on account of weather conditions.

Low Grade Ammoniates

Certain materials were in better supply and available more freely. However, offerings were being picked up by buyers who had not fully covered their requirements previously.

CHARLESTON

Weather Delays Mixed Fertilizer Shipment. Organics Somewhat Lower in Price. Market Tight on Chemical Materials.

Exclusive Correspondence to "The American Fertilizer"

CHARLESTON, March 1, 1948.

The three prime ingredients—nitrogen, potash, and superphosphate—continue short of demand with the shortage being tightest in the stated order. Movement of mixed fertilizers to the country has been delayed on account of bad weather, particularly in the South.

Organics.—The call for organics continues slack with prompt shipment domestic nitrogenous readily available. Prices on domestic nitrogenous range from $5.00 to $6.00 per unit of ammonia, ($6.08 to $7.29 per unit N), f.o.b. production point, depending on the shipping point. South American organics continue higher than domestic fertilizer manufacturers will pay.

Castor Pomace.—A recent offering for March/April shipment was made at $40.00 per ton, f.o.b. production points in the East.

Potash.—Shipments against contracts are back to normal, with production steady and transportation adequate. In fact, output is a little ahead of previous estimates, but demand continues far in excess of supply.

Nitrate of Soda.—The market remains tight with demand far in excess of supply. No changes in prices have been noted.

Sulphate of Ammonia.—December production was the highest on record for 1947, but demand continues to exceed supply, and with the threat of a coal strike no prediction can be made of estimated supplies during the coming months.

Dried Ground Blood.—The market is quiet with prices around $9.00 per unit of ammonia ($10.94 per unit N), at Chicago.

Tankage.—Prices still maintain their relatively low levels compared to previous weeks. The feed trade has been buying recently at $9.00 per unit of ammonia ($10.94 per unitN), with little interest shown by the fertilizer trade.

Superphosphate.—Due to the inclement weather which has delayed movement of fertilizers to the farmers, stocks of superphosphate are relatively high, but are expected to diminish rapidly when weather conditions improve. Practically no offerings are being made as these stocks are committed.

Phosphate Rock.—Demand continues heavy and the market is termed tight. Supply conditions are expected to improve considerably when one of the major producers begins operation of a new mine in the next few months.

PHILADELPHIA

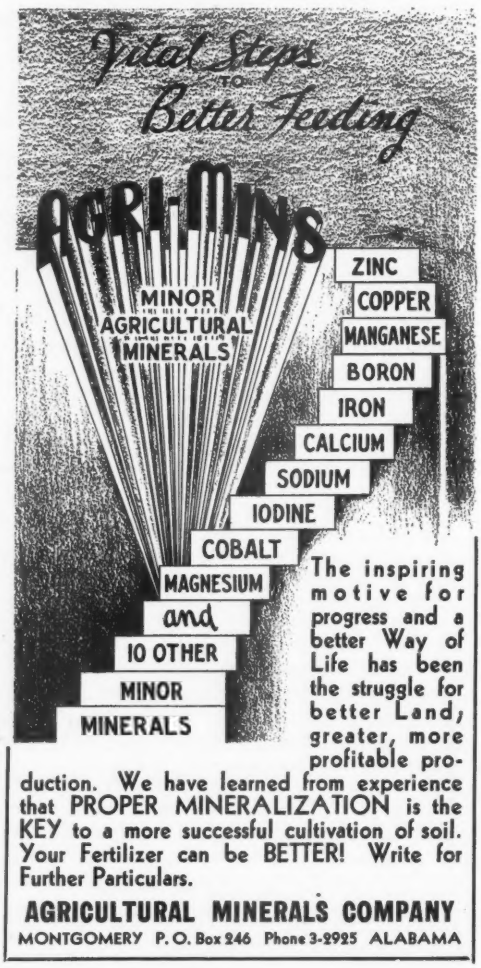
Farmers Delaying Shipment of Fertilizer Purchased. Some Material Stocks Accumulating. Material Demand Still Strong.

Exclusive Correspondence to "The American Fertilizer"

PHILADELPHIA, March 1, 1948.

In spite of the fact that farmers are still not taking delivery of their mixtures already under contract, the demand for raw materials remains quite strong. There is some complaint of scarcity of box cars and some fear the possibility of a coal strike.

Sulphate of Ammonia.—The demand is exceedingly strong and contract shipments are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"Pioneer Producers of Muriate in America"

reported behind schedule. There is also a scarcity of box cars in some areas.

Nitrate of Soda.—Buying conditions remain without improvement and the supply continues unequal to the demand.

Ammonium Nitrate.—There is plenty demand but production is entirely inadequate.

Castor Pomace.—Limited offerings are reported at $40.00 per ton at the mill, in bags.

Blood, Tankage.—Organics are considerably weaker, but still too high for general fertilizer use. While $9.00 per unit of ammonia ($10.94 per unit N), is the nominal asking price, this could undoubtedly be reduced on firm orders.

Fish Scrap.—The supply is scant but some menhaden meal was quoted at $160.00 per ton.

Phosphate Rock.—The supply continues short of requirements and there is fear of more serious box-car shortage.

Superphosphate.—The supply is somewhat easier and failure of the farmers to take delivery of their contracted-for mixtures is causing a serious accumulation of stocks in many of the mixing plants.

Potash.—Contract shipments are reported to be practically on schedule, but the demand is much in excess of the supply.

Manning of International Receives Science Honor

The latest honor among a long distinguished list conferred upon Dr. Paul D. V. Manning, vice-president in charge of research for International Minerals and Chemical Corporation, was the announcement recently of his election to a fellowship in the New York Academy of Sciences.

Election to a fellowship in the Academy is conferred upon a limited number of active members who, in the estimation of the Academy Council, have done outstanding work towards the advancement of science. The Academy is the fourth largest society of its kind in the nation, with a membership of about 4,000 and is the only society serving the entire body of science in the New York area.

Dr. Manning was invited to join International Minerals and Chemical Corporation in 1941 to organize and administer a new research program which has subsequently filled a vital role in the expansion and diversification of the company's efforts since that time in the production and utilization of phosphate, potash, amino acid products, and in the field of agronomy.

Dr. Manning received his doctorate in chemical engineering from Columbia University in 1927 and is a member of the American Chemical Society, American Electrochemical Society, Tau Beta Pi, Sigma Xi, Epsilon Chi, Phi Lambda Upsilon, a past president of Alpha Chi Sigma, a fellow of the American Association for the Advancement of Science, a fellow of the American Institute of Chemists, and a director of the Industrial Research Institute.

Bill To Remove Duty from Agricultural Lime

The U. S. House of Representatives has passed a bill (H. R. 5275) removing the import duty from limestone in any form when it is to be used in the manufacture of fertilizer. The present duty is 1¼ cents per 100 pounds, and prior to the recent Geneva trade agreement it was 5 cents per 100 pounds. The present bill does not pertain to limestone imported for building or construction purposes but is limited strictly to limestone for fertilizer use. The measure is now before the Senate for its approval.

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And that calls for fertilizers . . . many of them compounded with potash, the vital soil nutrient that increases fertility, and guards against diseases and drought.

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A PRODUCT OF NEW MEXICO U.S.A.
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HIGRADE MURIATE OF POTASH
62/63% K_2O

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48/52% K_2O

MANURE SALTS
22/26% K_2O

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Holland and Russia in Fertilizer Barter

Holland will export 80,000 tons of superphosphates to the Russian zone of Germany during the 1948–1949 fertilizer season in exchange for 80,000 tons of 40 per cent potash salts, according to an agreement between the Dutch Government and the Soviet Military Administration in Berlin, it was announced.

The Russian potash will cover one quarter of Holland's requirements of the chemical during the next season, the Dutch Ministry of Agriculture declared.

Carpenter Stainless Steel No. 20

A corrosion-resistant stainless steal, available in the form of bar stock, wire, strip, tubing and pipe, has been developed by the Carpenter Steel Company, Reading, Pa. Previously, this stainless steel has been available only in cast form, known as Durimet 20, manufactured by the Duriron Company, Dayton, Ohio.

The outstanding feature of Carpenter Stainless No. 20 is its excellent resistance to hot sulphuric acid, permitting its use in 60° Be acid at temperatures of about 125° F.

Analysis of the alloy shows: carbon, 0.07 per cent max.; manganese, 0.75 per cent; silicon, 1.00 per cent; chromium, 20 per cent; nickel, 29 per cent; molybdenum, 2.00 per cent min.; copper, 3 per cent min. The nickel content of approximately 29 per cent, fortified with high chromium and molybdenum, provides a suitable matrix to place the copper in solid solution, which is of fundamental importance in securing unusually good resistance to sulphuric acid. Copper has been found to be essential in securing this resistance and it has been demonstrated that the presence of copper will increase the corrosion resistance by as much as 500 to 1.

The fact that all of the copper is in solid solution, and not present in the alloy as a free element, practically eliminates the possibility of copper contamination. An adequate amount of chromium is present to secure resistance to oxidizing acids, and with the well-balanced proportion of nickel, the resulting austenitic matrix has all the mechanical properties of the conventional 18–8 alloy. The molybdenum content of about 2 per cent helps to build a more pitting-resistant or "passive" film, and provides greatly increased resistance to sulphuric acid, acetic acid and other chemical reagents. In some cases the 2 per cent molybdenum increases sulphuric acid resistance by as much as 100 to 1.

In addition to its resistance to sulphuric acid, Carpenter Stainless No. 20 is also highly resistant to nitric and phosphoric acid, as well as to solutions of various fertilizer chemicals such as ammonia salts, potassium salts, sodium nitrate, etc.

Profitable Soybean Yields in North Carolina

With the increased demand for soybeans, as a source of edible vegetable oil and as a protein concentrate for livestock feed, has risen the importance of increased yields of soybeans through good stands of adapted varieties and proper fertilization.

As a rule, little fertilizer or lime is used on soybeans or on the crops in rotation with soybeans. However, potash and phosphorus are required just like cotton, corn, tobacco or any other crop. While the amounts removed by soybeans vary with location, season and variety, it should be noted that approximately twice as much K_2O as P_2O_5 is removed.

Drs. W. L. Nelson and E. E. Hartwig of the North Carolina Experiment Station report on experimental work conducted in North Carolina the past few years, showing that yields of 30 to 40 bushels per acre can be regularly expected if proper production practices are followed. These important practices were found to be as follows:

1. Liming the soil with dolomitic limestone in accordance with its requirements as shown by soil tests.

2. Fertilizing with adequate amounts of potash and phosphorus.

3. Planting and securing a good stand of an adapted variety.

BEMIS MINUTE MOVIES

FOR SHIPPERS WHO WANT TO SAVE TIME AND MONEY

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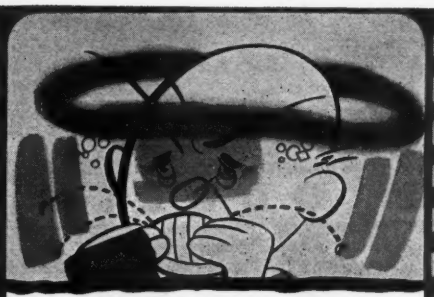
FERDIE, THE FERTILIZER THAT WALKED IN HIS SLEEP



1. Ferdie is a special fertilizer... has the jitters ...is hard to control.

2. Formerly he sifted about in storage... went sleep walking and wasted his strength.

3. He needed better packaging... got it in Bemis Waterproof Bags. Now he sleeps like a baby through long days and nights in storage.

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Special fertilizers and chemical nitrogen fertilizers often sift out of ordinary containers and cause additional loss by damaging products nearby. They need the protection of Bemis Waterproof Laminated Textile Bags. These bags are extra sturdy... they resist tears and punctures. They are fully tested *before* they're put to work. *These pre-tests stop protests*... assure complete satisfaction.

Guard your fertilizers during shipments and keep them safe in storage with Bemis Waterproof Bags. Mail coupon now for prices and complete information.

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BURLAP AND COTTON BAGS

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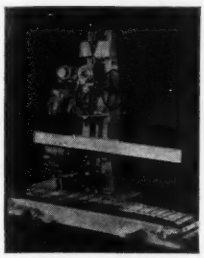
To show more clearly the importance of these practices in the successful production of soybeans, nine tests were located in the Coastal Plain of North Carolina in 1946.

Dolomitic limestone was broadcast in February on the limed plots with the normal rate being one ton per acre. Plots with no fertilizer and with 400 pounds per acre of 0–10–20 were located on the limed and unlimed blocks. The 400-pound rate was selected because a 40-bushel crop of soybeans will remove at least three-fourths of this amount. The 0–10–20 analysis was used because it has been shown that soybeans require twice as much potash as phosphorus, and other crop response data indicated that this would be a desirable ratio. In addition, potash alone and phosphorus alone were applied on the limed plots. The fertilizer was placed in bands to each side of the seed. The Ogden variety was planted at a rate sufficient to give 10 to 12 seeds per foot in a 3 or 3½ foot row.

The results obtained in these experiments reveal the importance of lime and fertilizer very clearly. An average of all the tests showed the following yields: no lime or fertilizer, 22.0 bushels; lime alone, 24.8 bushels; fertilizer alone, 27.2 bushels; lime and fertilizer, 34.4 bushels. These results show that the addition of lime alone or fertilizer alone is not sufficient. Attention must be directed toward both factors if maximum yields are to be reached. In addition, both phosphorus and potash were necessary in most of the experiments, as shown by the average yields, phosphorus alone increased yields 2.2 bushels, and potash 4.9 bushels; but both of them together increased yields 9.6 bushels—(*Reprinted from Cyanograms, January, 1948.*)

Good Cultural Practices for Oats

Among the good cultural practices recommended by the Pennsylvania Extension Service for the growing of oats are: (1) Sow as early as possible on fine, firm seedbed; (2) Under normal conditions sow eight pecks of seed per acre, but where lodging is a problem and when used as a companion crop use six pecks; (3) On the less fertile soils fertilize with 200 to 300 pounds of 3–12–6 or 4–12–8, on fertile soils use 200 to 250 pounds of 0–20–0 or 250 to 300 pounds of 0–14–7 or 0–12–12. When seeding a legume with the oats these rates of application may be slightly increased. (*Pa. Ext. Leaflet 112*)



BAGPAKER E-1 (Portable). Working with filled bags, one operator can close up to 15 bags per minute. A single foot pedal controls both conveyor and sewing head.

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Cut packaging time and operating costs . . . sell fertilizer packaged the way farmers prefer—by using a Bagpaker E-1 (illustrated). All Bagpakers sew a "cushion-stitch" closure that's the strongest part of the open-mouth multiwall paper bag—yet the bag opens easily and quickly. Write Bagpak for details.

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Houston, Tex.
Norfolk, Va.
Havana, Cuba

San Juan, Puerto Rico

January Sulphate of Ammonia

A decline of about 3 per cent was recorded in the production of by-product sulphate of Ammonia during January, according to the figures of the U. S. Bureau of Mines. The output from coke-oven ammonia was 72,202 tons, compared with 74,480 tons in December, 1947. The Bureau also reports an additional 1,930 tons produced from purchased synthetic ammonia during January. Shipments dropped 10 per cent during January, to 68,972 tons, with the result that stocks on hand at producing plants on January 31st rose to 31,538 tons.

	Sulphate of Ammonia Tons	Ammonia Liquor Tons NH_3
Production		
January, 1948	72,202	2,094
December, 1947	74,480	2,219
January, 1947	68,045	2,164
Shipments		
January, 1948	68,972	1,782
December, 1947	76,609	1,942
January, 1947	65,726	2,013
Stocks on Hand		
Jan. 31, 1948	31,538	1,077
Dec. 31, 1947	28,753	911
Jan. 31, 1947	35,463	698

Link-Belt Opens New Sales Offices

Link-Belt Company has announced that, in order to better serve customers in the State of Delaware, they have established a district sales office in Wilmington, with headquarters at 805 Orange St., Wilmington 43.

William H. Kinkead, associated with the company's Philadelphia plant in various capacities since 1920, when he entered the employ of the positive drive division, has been appointed district sales manager in charge of the new office.

The company has also established a district sales office in Charlotte, N. C., with headquarters at 617 Johnston Building, Charlotte 2.

Thomas H. Appleton, formerly district sales engineer at Baltimore, Md., has been appointed district sales manager in charge of the new office.

Mr. Appleton entered Link-Belt employ in 1928 at the company's Philadelphia plant, serving subsequently at the Boston office and factory branch store, and, since 1945, at the Baltimore office.

Mr. Appleton is not new to southern territory, as he has in reality been serving customers in Virginia and North Carolina ever since his transfer to Baltimore.

Delaware Potato Recommendations

For early potato production, Professor E. P. Brasher of the Delaware Experiment Station lists eight practices which have been substantiated by research findings: (1) Plant Irish Cobbler or Katahdin varieties; (2) Complete plantings by second week in April; (3) Plant potatoes 12 inches apart in the row with three feet between rows; (4) Plant seed pieces four inches deep; (5) Use seed pieces with a minimum weight of one and one-half ounces. When this size piece is used, 22½ bushels will plant one acre; (6) Apply a 4–8–12 fertilizer. If not available use a 5–10–10 or a 4–12–8; (7) Fertilize at the rate of 1,200 pounds to the acre; and (8) Apply fertilizer in bands two inches to each side of the row and slightly below the seed piece level. (*Delaware Ext. News Release, April 4, 1947*)

JANUARY TAG SALES

(Continued from page 14)

15 States were about two and one-half times larger than for the same period in the 1936–1937 fiscal year.

July-January sales in the 11 Southern States, amounting to 3,584,000 tons, were 5 per cent below the 3,756,000 tons reported for the corresponding period in 1946–1947. Decreases, ranging from 2 per cent for North Carolina to 31 per cent for Alabama, were recorded by six States, while the other five States reported increases which ranged from 1 per cent for Georgia to 47 per cent for Oklahoma. Sales in the Midwestern States rose 36 per cent, with each of the four States reporting an increase.

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WAGE INCREASES AND INFLATION

(Continued from page 8)

Total production can be increased by expansion of physical capacity of productive facilities, by an increase in the average number of hours worked per week and by increase in productivity, or physical output per man-hour.

In the manufacturing industry, labor cost per unit of production was about 87 per cent greater in October, 1947 than in 1939, without corresponding increases in man-hour output, according to government figures.

With average hourly earnings in manufacturing up approximately 98 per cent over pre-war 1939 as of October, 1947, and with no important increases in productivity except perhaps 7 per cent in a period of eight years, the resulting wage cost per unit of production had to go up 87 per cent in the same period.

In other words, 87 of the 98 percentage points increase in hourly wages went directly into higher unit labor cost of production, because of the very limited gains in output per man-hour.

The gap is so wide between the almost horizontal trend of productivity since 1939 and the steep rise in wage cost per unit over the same years, that there can be no doubt that prices have felt practically the full impact of wage increases because of the failure to bring about sharp increases in output per man-hour.

Possibilities for narrowing the gap between productivity and unit labor cost depend upon the cooperation of everyone concerned. Management can redouble its efforts to lower unit costs through new methods, new equipment and new processes and workers can help by giving their best efforts to their jobs and by suspending feather-bedding rules and other practices that tend to cut down the man-hour output.

The NAM study of the statistics, as estimated by the Department of Commerce, on the distribution of the proceeds of the gross production of business indicates that an attempt to squeeze a third round of wage increases out of the slim share still remaining for investment may well destroy incentive for the capital formation upon which jobs and production depend.

The analysis shows that the share of the gross proceeds taken by business and its stockholders has narrowed sharply since 1929, a period in which government and labor hired by business substantially increased their shares.

From 1929 to 1947, government increased its share of the gross proceeds from 8.9 per cent to 13.2 per cent. The share of labor paid by business rose from 46.4 to 50.5 per cent—while dividends, retained earnings and capital consumption allowance declined from 18.3 to only 11.7 per cent.

It is, of course, mathematically possible to reduce further the share of those who provide capital and that retained by business for maintaining or expanding its investment —mathematically possible in the sense that these have not yet been reduced to zero.

If the results of a third round of wage increases were merely to inflate the price of the output of business and to leave the percentage shares of the various factors unchanged, nothing would be gained by anyone.

The only alternative to this entirely futile result of a general wage increase would be to increase labor's share at the expense of one of the other shares. If the government, through economies, were to reduce its share, that would be beneficial to all the productive segments of the economy, but the remaining shares show very little room for reduction.

* * *

Actually, a third round of wage increases already has commenced. Some of the larger corporations have announced wage increases for the third time since V-E Day. While settlements already made are too few and widely scattered to indicate anything like a national pattern, the majority of the increases have been in the neighborhood of from eight to 15 cents an hour.

Industry faces third round wage demands at a time when it is producing at maximum capacity and is confronted with strong government and public pressure for lower prices. Many employers are faced with the alternative of granting wage increases or taking strikes involving serious production and

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financial losses. Many are apparently disposed to retain industrial peace and continued production provided the price is not too high.

It should be emphasized that the ability to absorb wage increases at this time varies widely between companies and industries. In some cases, moderate wage increases arrived at without strikes, might be absorbed without substantial increases in unit labor costs or prices. In other instances, any wage increase will certainly mean higher unit labor costs and prices.

In either event, a third round of wage increases is discouraging from the standpoint of reducing prices or checking inflation.

A Four-Point Program

There are four points which deserve careful consideration by everyone:

1. It is in the interest of the public and of the national economy that wage decisions be made by each individual company in the light of its own circumstances, labor costs and competitive position rather than on the basis of regional or industrywide compacts.

2. There is real danger to the economy in an approach to the problem of third round wage increases on the basis of an industry or national pattern.

3. Both labor unions and company managements should bear in mind that their negotiations and agreements with respect to wages in 1948 will very likely have a direct bearing on the volume of payrolls and the amount of employment in 1949. Every cent added to wage rates raises the break-even point for company operations. Hanging over every bargaining table this year looms the threat of higher prices, consumer resistance, over-stocked inventories and—in the background—the possibility of curtailed production schedules and reduced employment.

4. There is an obligation for management to relate, so far as possible, whatever wage increases may be agreed upon to improved employee performance and increased production. Labor unions may properly be requested to abandon their opposition to existing or proposed wage incentive plans, and to discontinue resistance to improved methods of operation and to cooperate fully in the elimination of feather-bedding and other artificial restrictions on productivity.

In view of the demonstrated futility of the wage price spiral, further wage increases are not the answer. Certainly if there is a capacity in industry for either lower prices or higher wages, the consuming public has the prior claim.

Ladino White Clover Needs Fertilizer

The high production potentiality of Ladino clover indicates that it requires large quantities of available plant food, particularly minerals. Although Ladino clover will grow in medium to slightly acid soils, calcium is needed for plant growth. Calcium is occasionally present in the soil in sufficient quantities, but ordinarily calcium must be added either by application of lime or phosphate fertilizers that contain calcium. Large applications of phosphate fertilizers are generally necessary for continuous satisfactory growth. Potash, which is generally deficient in soils of this region, is also essential. The amounts to use depend upon the character of the soil and the previous cropping practices. Four to six hundred pounds per acre of 20 per cent superphosphate and, if there is a potash deficiency, 200 pounds per acre of muriate of potash, or their equivalents, have been profitable.

Ladino clover, the authorities point out, responds well to annual top-dressings of fertilizer. Throughout most of the Northeast region application should be made in early spring. The returns from Ladino clover more than compensate the cost of the additional fertilizer. (*USDA Farmers Bulletin 1910*)

Industrial Nitrogen Export Quotas

The Office of International Trade has issued a list of the export quotas for nitrogen materials to be used for industrial use only, during the first quarter of 1948. The list includes 2,034 tons of ammonium nitrate, 221 tons of sulfate of ammonia, 594 tons of nitrate of soda, 590 tons of urea. The largest allotments were 1,000 tons of ammonium nitrate to Mexico and the same amount to Chile.

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